

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A surface inspection system for work boards passing through a plurality of manufacturing processes being transferred by a transferring roller, comprising:

a detecting means for detecting entry and exit of each work board into and out of each manufacturing process;

a time-measuring means for measuring times when the entry and exit of each work board are detected by said detecting means;

a determining means for determining whether each work board exits out of each manufacturing process at a scheduled exit time calculated based on the entry time measured by said time-measuring means;

a line ~~sensors~~ sensor for one dimensionally imaging an elongated work board having exited out of each manufacturing process in lines perpendicular to the moving direction of the work board, each line sensor comprising two types of image data sampling means, one for an odd-number sampling line and the other for an even-number sampling line;

a velocity-measuring means for measuring in real time the rotational velocity of the a transferring roller ~~for transferring the work board~~ on each data sampling position of the line sensor;

a sampling control means for controlling timing of the image data sampling of said line sensor in the direction of board movement and on the basis of the moving velocity of the work board measured by said velocity-measuring means;

an image-composing memory for forming a two-dimensional image of the work board by sequentially combining odd line data and even-line data from the line sensor;

~~a detecting means for detecting entry and exit of the work board into and out of each manufacturing process;~~

~~a time-measuring apparatus for measuring times when the entry and exit of the work board are detected by said detecting means; and~~

a controlling means to correct the image data based on degree of slant of the work board;

an identifying means for identifying the work board and the image data thereof based on a process number representing each manufacturing process, and on times of entry and exit of the work board into and out of the process measured by said time-measuring means; and

a transmitting means for assigning each work board its own transmission channel for sequentially transmitting images of the board on each manufacturing process, assembling said image data into a transmission packet and transmitting said transmission packet.

Claim 2 (Canceled)

Claim 3 (Canceled)

Claim 4 (Canceled)

Claims 5-10 (Canceled)

11. (Currently Amended) A surface inspection system as in claim ~~3~~ 1, wherein slant correction is accomplished by an affine transformation based on the angle of slant as determined by the following equation:

$$\theta = \cos^{-1} (A_0/A')$$

wherein θ equals the angle of slant, A_0 equals the width of the work board and A' equals the number of pixels.

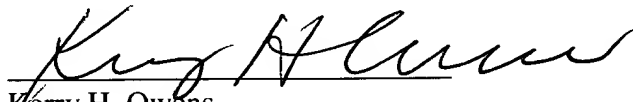
CONCLUSION

Applicant believes that all claims are now in condition for allowance and withdrawal of all rejections is respectfully requested. If the Examiner believes that a telephone conversation would advance the prosecution of this application, she is invited to contact the undersigned at the telephone number listed below.

The Commissioner is hereby authorized to charge any additional fees that are required or credit any overpayment to Deposit Account No. 19-2112 referencing Attorney Docket No. HIAS.95176.

Respectfully submitted,

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